

## Testing USB OTG

- ▶ With memory stick still inserted, let's try USB OTG functionality
- ▶ We need to load **gadget** driver that will determine **USB device** functionality on the USB On-The-Go port
- ▶ When gadget is mass storage device, we need to provide memory location that will be used for mass storage
  - Can be real device (like memory stick) available under `/dev/` tree
  - Can be a file whos' content mimics a real file system

## Testing USB OTG

- ▶ Load gadget driver, instructing it to use memory stick we inserted for mass storage

- `modprobe g_file_storage file=/dev/sda1`

- ▶ Insert USB cable to PC

- ▶ EVK should be recognized as mass storage device and memory stick content should be visible!

- ▶ Remember to unmount the EVK on PC

- ▶ Remove gadget driver as well

- `rmmod g_file_storage`

- ▶ Unplug USB cable from PC



```
COM1 - Tera Term VT
File Edit Setup Control Window Help
root@freescale ~$ modprobe g_file_storage file=/dev/sda1
g_file_storage gadget: File-backed Storage Gadget, version: 20 Novembe
r 2008
g_file_storage gadget: Number of LUNs=1
g_file_storage gadget-lun0: ro=0, file: /dev/sda1
Suspend udc for OTG auto detect
udc run
USB Gadget resumed
fsl-usb2-udc: bind to driver g_file_storage
root@freescale ~$ g_file_storage gadget: high speed config #1

root@freescale ~$ rmmod g_file_storage
unregistered gadget driver 'g_file_storage'
root@freescale ~$
```

## Testing USB OTG

- ▶ In order to create a file containing file system type following **on host PC terminal** in LTIB install folder:

- `cd /home/freescale/mx28/ltib`  
`sudo mkdosfs -C rootfs/root/dosfs 8192`

- ▶ Switch back to serial terminal and check that file named **dosfs** is available

- `cd`  
`ls -al dosfs`

## Testing USB OTG

- ▶ Load gadget driver, instructing it to use **dosfs** file for mass storage

- `modprobe g_file_storage file=/root/dosfs`

- ▶ Insert USB cable to PC

- ▶ EVK should be recognized as empty (~8MB) storage device

- ▶ When done, remember to unmount EVK on Host PC

- ▶ Remove `g_file_storage` module when not needed any more

- `rmmmod g_file_storage`

- ▶ **dosfs** can also be accessed from EVK

- `mkdir /mnt/fs`  
`mount dosfs /mnt/fs`  
`ls -al /mnt/fs`  
`umount /mnt/fs`